

REMARKS

Claims 1-6, 9-19, 22-24 and 26-29 are currently pending.

Art Rejections - Bernardin in view of Guidotti

Claims 1-4, 9, 14, 15, 19, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Guidotti (USPN 6,037,518). Applicants respectfully traverse this rejection.

Representative claim 1 recites, *inter alia*, an absorbent article comprising:

- (1) an acquisition layer and
- (2) at least one first storage layer,

wherein said first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer, and wherein the first storage layer lies between the acquisition layer and the liquid permeable upper surface.

The Examiner alleges that Bernardin teaches a similar absorbent article, as shown in Fig. 7:

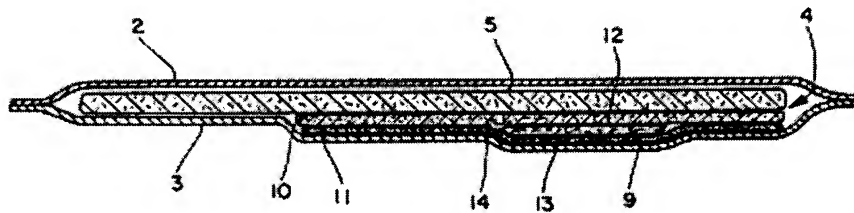


FIG. 7

- Layer 2 is a liquid permeable liner.
- Layer 5 is low density layer of cellulosic fibers that the Examiner alleges corresponds to the claimed acquisition layer.
- Layer 10 is a first higher density component that the Examiner alleges corresponds to the claimed first storage layer.
- Layer 11 is a second higher density component that the Examiner alleges corresponds to the second storage layer.
- Layer 9 is a superabsorbent material which is taught to be between layers 10 and 11 in order to obtain wicking across the entire length of the superabsorbent and contacts both the upper surface (12) and lower surface (13) of the superabsorbent material.

Thus, it is clear that Bernardin does not teach or suggest at least that:

- (1) first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer; and
- (2) the first storage layer lies between the acquisition layer and the liquid permeable upper surface.

The Examiner relies on Guidotti to remedy the first deficiency and on a "rearrangement of parts" argument to remedy the second deficiency. However, the attempts to remedy the deficiencies of Bernardin do not present proper a *prima facie* case of obviousness.

Superabsorbent in First Storage Layer

Claim 1 recites that the first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer.

Claim 16 recites that the first storage layer comprises a super absorbent material.

Bernardin does not teach or suggest each feature of the presently claimed invention, as set forth in representative claims 1 and 16. For example, Bernardin does not teach or suggest that a first storage layer contains superabsorbent material.

The Examiner admits that "Bernardin also does not teach that the high-density layers contain superabsorbent material." Official Action at page 6. However, the Examiner maintains that:

Guidotti teaches an absorbent article having a separate acquisition layer and storage layer wherein the storage layer is comprised of at least 10-80% superabsorbent material by weight of said storage layer. Since Guidotti teaches a storage layer that draws fluid from an acquisition layer, i.e. the storage layer of Guidotti perform an identical function to the storage layer of Bernardin, it would be obvious to one of ordinary skill in the art to include superabsorbent in the storage layer of Bernardin in an amount between 10-80% as taught by Guidotti with a reasonable expectation of success.

See Official Action at page 6.

However, the Examiner overlooks that Bernardin already teaches the addition of superabsorbent material as a separate layer from the first and second higher density components 10 and 11. That is, Bernardin teaches away from including superabsorbent in the first high density component 10. Bernardin teaches that when

superabsorbent is included in the Bernardin diaper, it is incorporated as a separate layer 9. See Figure 7. The superabsorbent layer 9 is placed between the first and second high density components 10, 11. Bernardin teaches that the purpose for sandwiching the superabsorbent layer 9 between the first high density component 10 and the second high density component 11 is so that liquid waste is brought into contact with an upper and lower surface of the superabsorbent layer 9, rather than across a bottom edge thereof. That is, the superabsorbent 9 is specifically taught to be a separate layer which is between the higher density components in order to obtain wicking across the entire length of the superabsorbent 9. See column 5, lines 16-24.

Accordingly, one skilled in the art would not be motivated to modify Bernardin in order to make a alleged first storage layer (first high density component 10) that includes superabsorbents. Bernardin specifically teaches away from such an arrangement.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

First Storage Layer Lies Between

Claims 1 and 16 recite that the first storage layer lies between the acquisition layer and the liquid permeable upper surface.

The Examiner asserts that first high density component 10 allegedly corresponds to the presently claimed first storage layer. See Figure 7 of Bernardin.

The Examiner further asserts that lower density layer 5 allegedly corresponds to the presently claimed acquisition layer. See Figure 7 of Bernardin.

As is clear in Bernardin, layer 10 is not between the alleged acquisition layer (lower density layer 5) and the liquid permeable upper surface.

The Examiner appears to treat a clear claim recitation as meaningless because, allegedly, the "criticality [of the claim recitation] is effectively negated by the disclosure of an equally operable and effective embodiment in which the storage layer is located elsewhere." See Official Action at page 3. Respectfully, applicants contend that this is not an accurate statement of the law. Without reference to the present specification, applicants contend that a specification may disclose multiple embodiments each of which may contain a critical feature that is not present in

another embodiment. The mere fact that multiple embodiments are disclosed may not be used as an admission that a feature found in one embodiment, but not another, is not a critical (or patentable) feature.

Further, the Examiner contends that "It has been held that rearrangement of parts involves only routine skill in the art" relying on *In re Japikse*, 86 USPQ 70 (CCPA 1950). See Official Action at page 3. However, the Examiner has not properly considered the context of when the rearrangement of parts involves only routine skill in the art. The Examiner is requested to review *In re Japikse*. As is clear in *In re Japikse*, the rearrangement of parts involves only routine skill in the art only when "the operation of the device would not thereby be modified." *Id* at 73. Accordingly, rearrangement of parts involves only routine skill in the art only when only when the operation of the device would not thereby be modified. When the operation of the device is in fact modified, then the rearrangement of parts is not just routine skill in the art.

The rearrangement of the lower density layer 5 and the higher density layer 10 of Bernardin would very much modify the operation of the absorbent article of Bernardin. Accordingly, the rearrangement of parts in Bernardin, as alleged by the Examiner, would not involve only routine skill in the art .

Moreover, Bernardin specifically teaches that "The liquid absorbing material 4 comprises a first, lower density layer 5 of cellulosic fibers such as comminuted wood pulp (fluff) which lies beneath the inner liner 2. A second, higher density layer 6 of fluff lies beneath at least a portion of the first lower density layer 5 such that waste fluid can be transferred from the lower density layer 5 to the higher density layer 6. Thus, a lower surface 15 of the lower density layer 5 should be contiguous with at least a portion of an upper surface 16 of the higher density layer 6." Column 3, lines 22-31. Applicants note that higher density layer 6 is shown in Fig. 2 and corresponds to combined layers 10, 9 and 11.

In order to achieve its principle of operation, Bernardin teaches that the higher density layer 6 is below the lower density layer 5. See column 3, lines 50-68 ("The higher density layer 6 draws waste fluid from the lower density layer 5 in the target area 7 upwardly towards the edge 8 at the back of the diaper 1. Further, along upper regions 18 of the higher density layer 6 towards the upper edge 8 there is, surprisingly, substantial fluid transfer back from the higher density layer 6 to the

lower density layer 5. It is important to note that although this flowback occurs from the higher density layer 6 to the lower density layer 5, the lower density layer 5 only draws sufficient fluid to satisfy its unsaturated capillary forces proximate to the higher density layer 6, where there is an overlap in pore sizes such that the smallest pores in the lower density layer 5 are smaller than the largest pores in the higher density layer 6. The lower density layer 5 drains fluid from the higher density layer 6 but does not become soaked, with the advantage that the wearer's comfort is maintained while a significant proportion of the absorption capacity of the lower density layer 5 is utilized.").

As clearly stated in the MPEP, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01(VI). Here, the Examiner's proposed modification is to switch the placement of lower density layer 5 and higher density layer 6 (or its equivalent in first high density component 10). This would change the entire principal of operation of Bernardin which relies upon the specific placement of the two layers in order to achieve proper "flowback" and maintain a wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Thus, one skilled in the art would not make the proposed modification, as suggested by the Examiner.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

Claims 4 and 19

Claims 4 and 19 have been amended to recite that at least one aperture or recess extends through an entire thickness of the first storage layer.

The Examiner has asserted that an aperture is a genus that includes pores. Applicants continue to traverse this interpretation. However, as amended, claims 4 and 19 recite that at least one aperture or recess extends through the first storage layer.

The Examiner has asserted that a pore extends through an entire thickness of the first storage layer. Applicants traverse this assertion and respectfully request the

Examiner to provide support for the assertion that a pore extends through an entire thickness of the first storage layer.

Claim 9

Claim 9 depends from claim 8 and recites that the absorbent article comprises a liquid permeable top sheet, wherein the liquid permeable top sheet and the acquisition layer are thermally joined in a hollow space in the first storage layer created by said apertures or recesses.

The first storage layer lies between the acquisition layer and the liquid permeable top sheet. And, the acquisition layer must pass through/between the first storage layer in order to be joined to the liquid permeable top sheet.

Thus, because the acquisition layer must pass through/between the first storage layer in order to be joined to the liquid permeable top sheet it is quite a different connection than a peripheral edge connection.

This rejection is respectfully requested to be withdrawn.

Claims 14 and 22

Claim 14 recites that the absorbent structure further comprises a second storage layer containing a lower amount of super absorbent material calculated on the total weight of the storage layer than the first storage layer.

The Examiner has asserted that second high density component 11 corresponds to the second storage layer. See Figure 7 of Bernardin.

The Examiner has asserted that it would be obvious to one of ordinary skill in the art to include superabsorbent in second high density component 11. As with the first high density component 10, this is not obvious.

Bernardin teaches that absorbent material 4 comprises all the different layers/components of different types of absorbent materials. Further, Bernardin teaches that super absorbent material 9 can be one of the layers/components. Then, one skilled in the art is taught that super absorbent material 9 is a separate layer that is placed below higher density layer 6 (see, e.g., Fig. 9) or first higher density component 10 (see, e.g., Fig. 10).

Accordingly, one skilled in the art would not be motivated to modify Bernardin in order to make an alleged second storage layer (second high density component 11) that includes superabsorbents.

Accordingly, Bernardin in view of Guidotti does not teach or suggest each feature of the presently claimed invention.

Bernardin in view of Guidotti Conclusion

Accordingly, applicants respectfully request that the rejection of claims 1-4, 9, 14, 15, 19, 22 and 23 as being unpatentable over Bernardin in view of Guidotti be withdrawn.

Art Rejections - Bernardin in view of Lassen

Claims 5, 6, 26 and 28 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Lassen (US Pat App Pub No 2002/0013563). Applicants respectfully traverse this rejection.

Bernardin does not teach or suggest each feature of the presently claimed invention. For example, Bernardin does not teach or suggest that a first storage layer contains superabsorbent material. Lassen does not remedy this deficiency.

Clearly, the combination of Bernardin in view of Lassen does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Lassen, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Lassen.

Accordingly, applicants respectfully request that the rejection of claims 5, 6, 26 and 28 as being unpatentable over Bernardin in view of Lassen be withdrawn.

Art Rejections - Bernardin in view of Berg

Claims 10 and 12 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Berg (USPN 5,180,622). Applicants respectfully traverse this rejection.

Claims 10 and 12 depend from claim 1.

The combination of Bernardin in view of Berg does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Berg, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Berg.

Further, claim 10 recites that the acquisition layer is a polyacrylate based super absorbent foam material.

The Examiner has alleged that Berg teaches a polyacrylate based super absorbent foam material and that one would be motivated to use the polyacrylate based super absorbent foam material in the alleged acquisition layer (lower density layer 5).

Bernardin specifically teaches that "The liquid absorbing material 4 comprises a first, lower density layer 5 of cellulosic fibers such as comminuted wood pulp (fluff) which lies beneath the inner liner 2. A second, higher density layer 6 of fluff lies beneath at least a portion of the first lower density layer 5 such that waste fluid can be transferred from the lower density layer 5 to the higher density layer 6. Thus, a lower surface 15 of the lower density layer 5 should be contiguous with at least a portion of an upper surface 16 of the higher density layer 6." Column 3, lines 22-31.

In order to achieve its principle of operation, Bernardin teaches that the higher density layer 6 is below the lower density layer 5. See column 3, lines 50-68 ("The higher density layer 6 draws waste fluid from the lower density layer 5 in the target area 7 upwardly towards the edge 8 at the back of the diaper 1. Further, along upper regions 18 of the higher density layer 6 towards the upper edge 8 there is, surprisingly, substantial fluid transfer back from the higher density layer 6 to the lower density layer 5. It is important to note that although this flowback occurs from the higher density layer 6 to the lower density layer 5, the lower density layer 5 only draws sufficient fluid to satisfy its unsaturated capillary forces proximate to the higher density layer 6, where there is an overlap in pore sizes such that the smallest pores in the lower density layer 5 are smaller than the largest pores in the higher density layer 6. The lower density layer 5 drains fluid from the higher density layer 6 but does not become soaked, with the advantage that the wearer's comfort is maintained while a significant proportion of the absorption capacity of the lower density layer 5 is utilized.").

As clearly stated in the MPEP, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being

modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01(VI). Here, the Examiner's proposed modification is to use the polyacrylate based super absorbent foam material in the alleged acquisition layer (lower density layer 5). This would change the entire principal of operation of Bernardin which relies upon the relationship between the two layers in order to achieve proper "flowback" and maintain a wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Thus, one skilled in the art would not make the proposed modification, as suggested by the Examiner.

Accordingly, applicants respectfully request that the rejection of claims 10 and 12 as being unpatentable over Bernardin in view of Berg be withdrawn.

Art Rejections - Bernardin in view of Berg in view of Shepard

Claim 11 stands rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of Berg (USPN 5,180,622) in view of Shepard (USPN 6,869,659). Applicants respectfully traverse this rejection.

Claim 11 depends from claim 1.

The combination of Bernardin in view of Berg in view of Shepard does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of Berg in view of Shepard, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by Berg and/or Shepard.

Further, claim 11 recites that the foam material of the acquisition layer exhibits a Gurley stiffness value lower than 1000 mg and a density in a dry condition exceeding 0.5 g/cm³.

The Examiner has alleged that Shepard teaches a foam for the backing of a loop material for a fastening device with the claimed foam properties. Then, the Examiner alleges that one skilled in the art would have been motivated by the foam of Shepard to modify the foam of the alleged acquisition layer (lower density layer 5).

The asserted basis for this substitution is that foam of Shepard seeks to solve an allegedly similar problem in the art to the device of Bernardin (i.e. foam as a layer of absorbent article to impart a desired stiffness).

However, this again overlooks that the proposed modification would change the entire principal of operation of Bernardin which relies upon the relationship between the two layers in order to achieve proper "flowback" and maintain a wearer's comfort while utilizing a significant proportion of the absorption capacity of the lower density layer 5.

Moreover, it is unreasonable to assert that one skilled in the art would modify the highly specialized foam of an acquisition layer by teaching of a foam for the backing of a loop fastener. This is not proper. One skilled in the art would not turn to or look to teachings of a support/backing layer to modify a specialized absorption layer.

Accordingly, applicants respectfully request that the rejection of claim 11 as being unpatentable over Bernardin in view of Berg in view of Shepard be withdrawn.

Art Rejections - Bernardin in view of McBride

Claim 13 stands rejected under 35 U.S.C § 103(a) as being unpatentable over Bernardin (USPN 5,009,650) in view of McBride (US Pat App Pub No 2004/0019340). Applicants respectfully traverse this rejection.

Claim 13 depends from claim 1.

The combination of Bernardin in view of McBride does not teach or suggest the presently claimed invention.

Further, if the Examiner were to assert a combination of Bernardin in view of Guidotti in view of McBride, applicants have highlighted a number of deficiencies of the Bernardin in view of Guidotti combination that are not remedied by McBride.

Accordingly, applicants respectfully request that the rejection of claim 13 as being unpatentable over Bernardin in view of McBride be withdrawn.

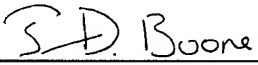
Conclusion

Favorable examination and further action in the form of a Notice of Allowance is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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